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- (51) 国際特許分類⁷: A61K 38/00, 9/08, A61J 1/00 (74) 代理人: 社本 一夫, 外(SHAMOTO, Ichio et al.); 〒100-0004 東京都千代田区大手町二丁目2番1号新大手町ビル206区ユアサハラ法律特許事務所 Tokyo (JP).
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- 2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(54) Title: METHOD OF STABILIZING PROTEIN SOLUTION PREPARATION

(54) 発明の名称: タンパク質溶液製剤の安定化方法

(57) Abstract: A method of enhancing the stability of protein solution preparations through inhibition of aggregate formation in a solution of physiologically active protein such as an antibody, an enzyme, a hormone or a cytokine. In particular, a method of stabilizing protein solution preparations, comprising storing the protein solution preparations under magnetic force lines; and a container for accommodating protein solution preparations, which comprises a magnetic force line generator.

(57) 要約: 課題: 抗体、酵素、ホルモン、サイトカイン等の生理活性を有するタンパク質の溶液状態における会合体の生成を抑制し、タンパク質溶液製剤の安定性を向上させる方法を提供する。 解決手段: 磁力線下にタンパク質溶液製剤を保存することを含むタンパク質溶液製剤の安定化方法及び磁力線発生装置を備えたタンパク質溶液製剤の収納容器。

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INTERNATIONAL SEARCH REPORT

National application No.

PCT/JP03/10754

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ A61K38/00, A61K9/08, A61J1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ A61K38/00, A61K9/08, A61J1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAPLUS (STN), MEDLINE (STN), BIOSIS (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 02/17957 A1 (Chugai Pharmaceutical Co., Ltd.), 07 March, 2002 (07.03.02), Particularly, Claims & EP 1329224 A1	13-15 1-12, 16, 17
X A	WO 01/17542 A1 (Chugai Pharmaceutical Co., Ltd.), 15 March, 2001 (15.03.01), Particularly, Claims & EP 1232753 A1 & JP 2001-521332 A	13-15 1-12, 16, 17
X A	WO 01/64241 A1 (Chugai Pharmaceutical Co., Ltd.), 07 September, 2001 (07.09.01), Particularly, Claims & EP 1260230 A1 & JP 2001-563138 A & US 2003/92622 A1	13-15 1-12, 16, 17

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* "A"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier document but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

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INTERNATIONAL SEARCH REPORT

International application No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 00/51629 A1 (Chugai Pharmaceutical Co., Ltd.), 08 September, 2000 (08.09.00), Particularly, Claims & JP 2000-247903 A & EP 1197221 A1	13-15 1-12, 16, 17
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A	JP 2000-229815 A (Toshimitsu HATTORI), 22 August, 2000 (22.08.00), (Family: none)	1-17
A	JP 2001-340062 A (Kabushiki Kaisha Toyo Shin'yaku), 11 December, 2001 (11.12.01), (Family: none)	1-17
A	US 5584994 A (Toshimitsu HATTORI, Masaru OTA), 17 December, 1996 (17.12.96), & JP 8-197064 A & JP 8-197066 A & EP 713842 A3	1-17
A	JP 1-262988 A (Kabushiki Kaisha Shoko Kagaku Kenkyusho), 19 October, 1989 (19.10.89), (Family: none)	1-17